

Servicing the Canon RadPro & RadPro Flex Plus



RADIOLOGICAL SERVICE TRAINING INSTITUTE

Introduction

Portable X-ray units are found in most radiological/diagnostic imaging departments. They are typically exposed to a higher abuse level due to elevator openings, tight room entrances, limited patient access, and lack of space for maneuverability. This constant abuse will cause premature mechanical failure if not properly identified and corrected early. The trained service professional will be taught the skills necessary for mechanical, electromechanical, and electronic maintenance of the Canon RadPro & RadPro Flex Plus portable systems. Each sub-system of the mechanical unit and the Sedecal generator is thoroughly analyzed.

Models Covered

This course will cover the following models:

- RadPro
- RadPro Flex Plus

Prerequisites

To attend this course, the service professional must have a good understanding of the principles gained through attending Phase 2, or 4 years equivalent experience. The service professional must also possess a good mechanical aptitude.

Objectives

At the conclusion of this course participants will be able to:

- Evaluate overall system performance
- Troubleshoot mechanical and electronic problems on all components of the unit
- Perform a complete and thorough preventive maintenance inspection on each portable unit
- Follow circuit operations of system detail block diagrams
- Calibrate the digital detector
 - o Canon CXDI

Course Outline

Day 1

- Introduction
- Overview
- Model Comparison
- Terms & Acronyms
- Basic operations
 - o Knobology
 - o Terminology
- Specifications
- Component ID
 - o Battery Change
 - o Motor Swap
- Models & unit comparison
 - o Mechanical
 - o Electronic
 - o Documentation
- Power Distribution
- System communications
- GSM (Generator Service Mode)
- Lab Activities

- o Basic operation
- o Component ID and location
- o Accessing GSM (Generator Service Mode)

Day 2

- Component identification and location
 - o Battery change
 - o Drive motor change
- Calibrations
 - o Filament standby current
 - o Exposure time adjustment
 - o kV loop adjustment
 - o mA calibrations:
 - Digital closed loop
 - Digital open loop
 - Auto
 - Manual
 - o Charging
- Lab Activities
 - o Charger calibration
 - o Filament calibration
 - o Battery maintenance
 - o Battery change

Day 3

- Mechanical Adjustments
 - o Light to X-Ray Field
 - o Motor brake check
 - o Chain adjustment
 - o Brake Adjustments
 - o Lock Adjustments
 - o Drive Circuits
 - Drive Handle Adjustment
 - Speed
- Lab Activities
 - o kV calibration
 - o Generator waveform analysis

Servicing the Canon RadPro & RadPro Flex Plus



RADIOLOGICAL SERVICE TRAINING INSTITUTE

Day4

- FPD
 - o Canon
 - Overview
 - Install & Pairing
 - Calibration
 - Troubleshooting
- Digital detector
 - o Detector pairing
 - o Detector calibration
 - o Digital Image Quality Checks
- Lab Activities
 - o Pair digital detector
 - o Calibrate digital detector
 - o Perform Image Quality checks on digital detector

Day 5

- Computer & PC Maintenance
 - o System Backups
 - o Ghost Image Creation
 - o Ghost Image Restore
 - o System Restore
- PM
- System troubleshooting
 - o Mechanical
 - o Electronic
- Overall system review
- Final exam
- Course evaluation